

10/18 #11



OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/907,907A

DATE: 10/21/2002

TIME: 15:32:33

Input Set : A:\EP.txt

Output Set: N:\CRF4\10212002\I907907A.raw

ENTERED
p.6

4 <110> APPLICANT: Fisher, Paul B.
5 Leszczyniecka, Magdalena
7 <120> TITLE OF INVENTION: GENES DISPLAYING ENHANCED EXPRESSION DURING CELLULAR
SENESCENCE AND
8 TERMINAL CELL DIFFERENTIATION AND USES THEREOF
11 <130> FILE REFERENCE: A34584-A-PCT-USA (070050.1664)
C--> 13 <140> CURRENT APPLICATION NUMBER: US/09/907,907A
C--> 14 <141> CURRENT FILING DATE: 2001-07-16
16 <150> PRIOR APPLICATION NUMBER: US 09/243,277
17 <151> PRIOR FILING DATE: 1999-02-02
19 <160> NUMBER OF SEQ ID NOS: 51
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25 <212> TYPE: DNA
26 <213> ORGANISM: Homo sapiens
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29 <221> NAME/KEY: unsure
30 <222> LOCATION: 534, 590
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35 gcctttttga agaaactcca cgaagaggaa atccaggagc tgcaggctca gattcaggaa 120
36 cagcatgtcc aaatcgatgt ggatgtttcc aagcctgacc tcacggctgc cctgcgtgac 180
37 gtacgtcagc aatatgaaag tgtggctgcc aagaacctgc aggaggcaga agaattgtac 240
38 aaatccaagt ttgtgacct ctctgaggct gccaacccga acaatgacgc cctgcgccag 300
39 gcaaagcagg agtccactga gtaccggaga cagggtgcagt ccctcacctg tgaagtggat 360
40 gcccttaaag gaaccaatga gtccctggaa cgccagatgc gtgaaatgga agagaacttt 420
41 gccgttgaag ctgctaacta ccaagacact attggcccgc ctgcaggatg agattcagaa 480
W--> 42 tatgaaggag gaaatggctc gtcaccttcg tgaataccaa gacctgctca atgntaagat 540
W--> 43 ggcccttgac attgagattg ccacctacag gaagctgctg ggaaggcgan gagagcagga 600
44 tttctctgct cttccaaact tttcctcctt gaccttgagg gaaactaatc tggattcact 660
45 ccctcttggg tgaa 674
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48 <211> LENGTH: 678
49 <212> TYPE: DNA
50 <213> ORGANISM: Homo sapiens
52 <220> FEATURE:
53 <221> NAME/KEY: unsure
54 <222> LOCATION: 566, 669
55 <223> OTHER INFORMATION: a or g or c or t
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59 tgtttgaagt gactcttgct gatttgacaga atgatgaagt tgcattagaa aattcaagct 120

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60 gattactgaa gatgttcagg gtaaaaaactg cctgactaac ttccatggca tggatcttac 180
61 ccgtgacaaa atgtgttcca tgggtcaaaaa atggcagaca atgattgaag ctcacgttga 240
62 tgtcaagact accgatgggt acttgcttcg tctgttctgt gttgggttta ctaaaaaacg 300
63 caacaatcag atacggaaga cctcttatgc tcagcaccaa caggtccgcc aaatccggaa 360
64 gaagatgatg gaaatcatga cccgagaggt gcagacaaat gacttgaaag aagtgggtcaa 420
65 taaattgatt ccagacagca ttggaaaaaga catagaaaag gcttgccaat ctatttatcc 480
66 tctccatgat gtcttcgtta gaaaagttaa aatgctgaag aagcccaagt ttgaattggg 540
W--> 67 aaagctcatg gagcttcatt gtgaanggca gtagttctgg aaaaagccac ttggggacga 600
68 aacaggtgct aaaagtgtga acgactgatg gatattgaac cccagtccaa gaatctgggt 660
W--> 69 aaaggtcana cttcaaat 678
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77 <221> NAME/KEY: unsure
78 <222> LOCATION: 656
79 <223> OTHER INFORMATION: a or g or c or t
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83 cttgaaaaaga gtgacctttg ctttaccaga tgatgcggaa actgaagata caggtgtttt 120
84 aaatgtaaag aaaaattctg atgaagttaa atcctccttt gaaaaaagac aggaaaagat 180
85 gaatgaaaaa attgcatctt tagaaaaaga gttgttagaa aaaaagccgt ggcaacttca 240
86 ggggggaagt acagcacaga agagccaga gaacagcctc ctggaggaga ccctacactt 300
87 tgaccatgct gtccggatgg cacctgtgat tacagaggaa accacccttc aactggaaga 360
88 tatcattaaa cagaggataa gagatcaggc ttgggatgat gtagtacgta aagaaaaacc 420
89 taaagaggat gcatatgaat ataaaaagcg tttaacctta gaccatgaga agagtaaatt 480
90 gaggcttgct gaaatttatg aacaggagta catcaaaactc aaccagcaaa aaacagcaga 540
91 agaagaaaat ccagaacatg tagaaattca gaagatgatg gattccctct tottaaattg 600
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96 <211> LENGTH: 675
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108 ggtagtgagg aaatgggcca gggcgagtc agctccagtc ccagagagct cctctctaac 180
109 tcagagcaac tgaactgaga cagaggagga aaacagagca tcagaagcct gcagtgggtg 240
110 ttgtgacggg taggaggata ggaagacagg gggccccaac ctgggattgc tgagcaggga 300
111 agctttgcat gttgctctaa ggtacatttt taaagagttg ttttttggcc gggcgagtg 360
112 gctcatgcct gtaatccag cactttggga ggccgaggtg ggcggatcac gaggtctgga 420
113 gtttgagacc atcctggcta acacagtga atcccgcttc tactaaaaat acaaaaaatt 480
W--> 114 agccaggcgt ggtggctggc acctgtagtc ccagctactt gggagctgan gcangagaat 540

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115 ggcgtgaacc tggaaggaag aagttgcagg tgagcccaag attgcgcccc cttgcactcc 600
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117 gcccccgggc cccca 675
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120 <211> LENGTH: 460
121 <212> TYPE: DNA
122 <213> ORGANISM: Homo sapiens
124 <220> FEATURE:
125 <221> NAME/KEY: unsure
126 <222> LOCATION: 411, 412, 415, 416, 423, 430, 433, 439, 442, 446, 452, 454,
127 456, 457
128 <223> OTHER INFORMATION: a or g or c or t
130 <400> SEQUENCE: 5
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132 cttccctggt ctcttttcta ttaaaaataa gaacctgggc agagtgcggc agctcatgcc 120
133 tgtaatccca gcaacttagg aggccgagga gggcagatca cgaggtcagg agatcgaaac 180
134 catcctggct aacacggtga aaccccgctct ctactaaaaa atacaaaaaa ttagctgggc 240
135 gcagaggcac gggcctgtag tcccagctac tcaggaggcg gaggcaggag aatggcgta 300
136 acccgggagg cggagggttc agtgagccag gattgtgcga ctgcactcca gcctgggtga 360
W--> 137 cagggtgaaa cgccatctca aaaaataaaa attaaaaaaa aaaaaaaaaa nntcnngggg 420
W--> 138 ggncccggtg ccnatttcnc cntatnggga gncntnnc 460
140 <210> SEQ ID NO: 6
141 <211> LENGTH: 445
142 <212> TYPE: DNA
143 <213> ORGANISM: Homo sapiens
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147 tatgaggatt atgtcgaagg acttcgggtg tttgacaagg aaggaaatgg caccgtcatg 120
148 ggtgctgaaa tccggcatgt tcttgtcaca ctgggtgaga agatgacaga ggaagaagta 180
149 gagatgctgg tggcagggca tgaggacagc aatgggttga tcaactatga agagctcgtc 240
150 cgcattggtc tgaatggctg aggaccttc cagtctcccc agagtccgtg cctttccctg 300
151 tgtgaatttt gtatctagcc taaagtttcc ctaggctttc ttgtctcagc aactttccca 360
152 tcttgtctct cttggatgat gtttgccgtc agcattcacc aaataaactt gctctctggg 420
153 ccctcggaag aaaaaaaaaa aaaaa 445
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156 <211> LENGTH: 666
157 <212> TYPE: DNA
158 <213> ORGANISM: Homo sapiens
160 <220> FEATURE:
161 <221> NAME/KEY: unsure
162 <222> LOCATION: 483, 498, 527
163 <223> OTHER INFORMATION: a or c or g or t
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167 tcttttaatt ttacttccca taagcgtaaa tgccctggaca tagctcttgt gcaaccttta 120
168 aataaattgt tttgagtgtt ttttgagccc cagacaaata atgttttaaa gttatcccct 180
169 tgctacttta ctgatacctt tatcattcct gagacagttt gctaatttaa aaatgtagca 240
170 ttccatttgt atttatttct ctcccttgcc aaaaagattt tctaatactg cttgtaccag 300
171 ccagagaaag atccaaaaca ctactcagct ctcttgcaact gaggaattt ttccccctac 360

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172 attgactcct ggccacatc agccaaactt aaccttgggtg gggtttggat ttgatagcca 420
173 attagttctg tgctggttgc aaagaattga tatttagatg gtttttaata ctcagcagat 480
W--> 174 tgnttcctt tatattngt ctttttatg ttgcatgtt cttttgntat cagcctgatt 540
175 ttttgctcag tatatgatag ttctgctgat ggtttggtta ttgggcagac atatcttcac 600
176 taagagtttt tggaaaactc atcaaattcg atgaatacat tttcttcata acccattgga 660
177 aatatac 666
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180 <211> LENGTH: 409
181 <212> TYPE: DNA
182 <213> ORGANISM: Homo sapiens
184 <400> SEQUENCE: 8
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186 tcctagaacc aggcgacctg cgactccttg acgttgacaa tcgagtagta ctcccgattg 120
187 aagcccccat tcgtataata attacatcac aagacgtctt gcactcatga gctgtcccca 180
188 cattaggctt aaaaacagat gcaattcccg gacgtctaaa ccaaaccact ttcaccgcta 240
189 cacgaccggg ggtatactac ggtcaatgct ctgaaatctg tggagcaaac cacagtttca 300
190 tgcccatcgt cctagaatta attcccctaa aaatctttga aatagggccc gtatttacct 360
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200 <222> LOCATION: 436, 663
201 <223> OTHER INFORMATION: a or c or g or t
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206 tctgcagtgg aaaaaaagcc cacatttgag gtggctcatc tagacctggc aagaatgtat 180
207 atagaagcag gcaatcacag aaaagctgaa gagaattttc aaaaattggt atgcatgaaa 240
208 ccagtggtag aagaacaat gcaagacata catttccact atggtcgggt tcaggaattt 300
209 caaaagaaat ctgacgtcaa tgcaattatc cattatttaa aagctataaa aatagaacag 360
210 gcatcattaa caagggataa aagtatcaat tctttgaaga aattggtttt aaggaaactt 420
W--> 211 cggagaaagg cattanactg gaaagcttga gcctccttgg gttegtctac aaattggaag 480
212 gaaatatgaa tgaagccctg gagtactatg agcgggccct gagactggct gctgactttg 540
213 agactctgtg agacaaggct cttagcccca gatatcagcc ctttccattt catttcattt 600
214 tatgctaaca ttactaatc atcttttctg cttactggtt tcagaacctt ataattccct 660
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218 <211> LENGTH: 672
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223 <221> NAME/KEY: unsure
224 <222> LOCATION: 585
225 <223> OTHER INFORMATION: a or c or g or t
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TIME: 15:32:33

Input Set : A:\EP.txt

Output Set: N:\CRF4\10212002\I907907A.raw

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229 cttcccccaa atctgatgga cctagaagtc tgcttttgta cctgctgggc cccaaagttg 120
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231 cttttttcttc agccattcca gcatagagaa caaaccttat ggaaacagga atgtcaattg 240
232 tgtaatcatt gttctaatta ggtaaataga agtccttatg tatgtgttac aagaatttcc 300
233 cccacaacat cttttatgac tgaagttcaa tgacagtttg tgtttggtgg taaaggattt 360
234 tctccatggc ctgaattaag accattagaa agcaccaggc cgtgggagca gtgaccatct 420
235 gctgactgtt cttgtggatc ttgtgtccag ggacatgggg tgacatgcct cgtatgtgtt 480
236 agagggtgga atggatgtgt ttggcgctgc atgggatctg gtgccccctc tctcctggat 540
W--> 237 tcacatcccc acccagggcc cggttttact aagtgtctgc cctanattgg gtcaaaggag 600
238 gtcatccaac tgactttatc aagtggaatt gggatatatt tgatatactt ctggctaaca 660
239 acatgggaaa ag 672
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248 <222> LOCATION: 585
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254 ggcatttttc tctctgttcc ctctcttttg aaaatgtaaa ataaaaccaa aaatagacaa 180
255 cttttttcttc agccattcca gcatagagaa caaaccttat ggaaacagga atgtcaattg 240
256 tgtaatcatt gttctaatta ggtaaataga agtccttatg tatgtgttac aagaatttcc 300
257 cccacaacat cttttatgac tgaagttcaa tgacagtttg tgtttggtgg taaaggattt 360
258 tctccatggc ctgaattaag accattagaa agcaccaggc cgtgggagca gtgaccatct 420
259 gctgactgtt cttgtggatc ttgtgtccag ggacatgggg tgacatgcct cgtatgtgtt 480
260 agagggtgga atggatgtgt ttggcgctgc atgggatctg gtgccccctc tctcctggat 540
W--> 261 tcacatcccc acccagggcc cggttttact aagtgtctgc cctanattgg gtcaaaggag 600
262 gtcatccaac tgactttatc aagtggaatt gggatatatt tgatatactt ctggctaaca 660
263 acatgggaaa ag 672
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266 <211> LENGTH: 669
267 <212> TYPE: DNA
268 <213> ORGANISM: Homo sapiens
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272 <222> LOCATION: 587, 595, 600, 660, 662
273 <223> OTHER INFORMATION: a or c or g or t
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278 aagaacatga caaccaagca aatgtgagga gtctggtgac ctggggcaac tttgcctgga 180
279 tgtattacca catgggcaga ctggcagaag cccagactta cctggacaag gtggagaaca 240
280 tttgcaagaa gctttcaaat ccttccgct atagaatgga gtgtccagaa atagactgtg 300
281 aggaaggatg ggccttgctg aagtgtggag gaaagaatta tgaacgggcc aaggcctgct 360
282 ttgaaaaggt gcttgaagtg gaccctgaaa accctgaatc cagcgctggg tatgcgatct 420
283 ctgcctatcg cctggatggc tttaaattag ccacaaaaaa tcacaagcca ttttctttgc 480

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RAW SEQUENCE LISTING ERROR SUMMARY
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 534,590
Seq#:2; N Pos. 566,669
Seq#:3; N Pos. 656
Seq#:4; N Pos. 530,534,650,651,655
Seq#:5; N Pos. 411,412,415,416,423,430,433,439,442,446,452,454,456,457
Seq#:7; N Pos. 483,498,527
Seq#:9; N Pos. 436,663
Seq#:10; N Pos. 585
Seq#:11; N Pos. 585
Seq#:12; N Pos. 587,595,600,660,662
Seq#:13; N Pos. 530,585,600,616,654,702
Seq#:16; N Pos. 6,7,14,359,383,449,456,459,473,501,504,515,518,528,532,535
Seq#:16; N Pos. 538,549,562,567,568,577,579,601,603,614,618,622,626,633,636
Seq#:16; N Pos. 641,678,683,692,708
Seq#:17; N Pos. 158,159,161,163,176,182,186,189,191,193,197,199,200,202,203
Seq#:18; N Pos. 479
Seq#:20; N Pos. 556,558,587
Seq#:21; N Pos. 389,396,400,409,418,429,463,468,520,556,575,591,594,613,635
Seq#:21; N Pos. 641,650,666,680,682,700,704
Seq#:23; N Pos. 21
Seq#:24; N Pos. 368,370,372,374,375,376,377,383,386,389
Seq#:26; N Pos. 386,389,390,397,404,409,413,416,424,426,430
Seq#:27; N Pos. 288,298,345,348,352,357,358,368
Seq#:29; N Pos. 495,508,511,526,530
Seq#:30; N Pos. 274,278,283,291,308,314,324,326,327,331,341,355,371,419,461
Seq#:30; N Pos. 531,534,545,558
Seq#:32; N Pos. 342,355,365,368,375,381,385,414,445
Seq#:33; N Pos. 434,459,460
Seq#:36; N Pos. 8
Seq#:37; N Pos. 546,553,573
Seq#:38; N Pos. 444,448,451,460,461,462,468,471,476,490,506,510,514,522,524
Seq#:38; N Pos. 535,550,563,567,568,573,579,587,590,592,593,596,608,615